12. ICRA Matrix of Precautions for Construction and Renovation

Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation

DISTRIBUTIVE ANNETNAE SYSTEM

575-12-104B

Step One: Using the following table, identify the Type (A-D) of Construction Project Activity.

Type	Construction Project Activity
Type A	**Inspection and Non-Invasive Activities.** Include, but are not limited to: Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet. Painting (but not sanding). Wall covering, electrical trim work, minor plumbing, and activities that do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
Type B	**Small scale, short duration activities that create minimal dust.** Include, but are not limited to: Installation of telephone and computer cabling. Access to chase spaces. Cutting of walls or ceiling where dust migration can be controlled.
Type C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies.** Includes, but is not limited to: Sanding of walls for painting or wall covering. Removal of floor coverings, ceiling tiles, and casework. New wall construction. Minor duct work or electrical work above ceilings. Major cabling activities. Any activity that cannot be completed within a single work shift.
Type D	**Major demolition and construction projects.** Includes, but is not limited to: Activities that require consecutive work shifts. Requires heavy demolition or removal of a complete cabling system. New construction.

STEP 1: Type A

Step Two: Using the following table, identify the Patient Risk Groups that will be affected.

Low Risk	Medium Risk	High Risk	Highest Risk
▪ Office areas	▪ Cardiology ▪ Echocardiography ▪ Endoscopy ▪ Nuclear Medicine ▪ Physical Therapy ▪ Radiology/MRI ▪ Respiratory Therapy ▪ Outpatient Clinics	▪ Emergency Room ▪ Labor & Delivery ▪ Clinical Laboratories ▪ Pediatrics ▪ Pharmacy ▪ Post Anesthesia Care Unit ▪ Surgical Units	▪ Any area caring for immuno-compromised patients ▪ Burn Unit ▪ Cardiac Cath Lab ▪ Supply, Processing, and Distribution ▪ All inpatient medical or surgical units ▪ Medical Unit ▪ Negative pressure isolation rooms ▪ Outpatient chemotherapy areas ▪ Operating Rooms

Step 2: Medium RIsk

Step Three: Match the…

Patient Risk Group (Low, Medium, High, Highest) with the planned Construction Project Type (A, B, C, D) on the following matrix, to find the Class of Precautions (I, II, III or IV) or level of infection control activities required.
(Class I-IV or Color-Coded Precautions are delineated on the following table.)

IC Matrix Class of Precautions: Construction Project by Patient Risk
Construction Project Type

Patient Risk Group	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I (green)	II (yellow)	II (yellow)	III/IV (pink)
MEDIUM Risk Group	I (green)	II (yellow)	III (pink)	IV (red)
HIGH Risk Group	I (green)	II (yellow)	III/IV (pink)	IV (red)
HIGHEST Risk Group	II (yellow)	III/IV (pink)	III/IV (pink)	IV (red)

Note: Infection Control approval is required for all construction or renovation activities.

Step 3: _____

Description of Required Infection Control Precautions *by Class*

CLASS	During Construction Project	Upon Completion of the Project
CLASS I	1. Execute work by methods to minimize dust dispersal from minor flooring or surface disruptions. 2. Immediately replace a ceiling tile displaced for visual inspection.	Clean up any dust that may have been generated with HEPA filtered vacuum or damp mop.
CLASS II	1. Provide active means to prevent airborne dust from dispersing into atmosphere with use of control cubes or other dust barriers. 2. Remove or isolate HVAC system in areas where work is being performed. 3. Water mist work surfaces to control dust while cutting. 4. Seal unused doors with duct tape. 5. Block off and seal air vents. 6. Place tacky mat at entrance and exit of work area and change frequently or when ineffective.	1. Wet mop and/or vacuum with HEPA-filtered vacuum before leaving work area and wipe work surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. Tape may be used to ensure a tight cover. 3. Remove isolation of HVAC system in areas when work has been completed.

CLASS	During Construction Project	Upon Completion of the Project
CLASS III	*As above and:* 1. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method before construction begins. 2. Maintain negative air pressure (NPV) within the work site utilizing HEPA-equipped air filtration units. 3. NPV monitoring devices should be visible from outside the worksite and readings should be documented daily or more often as needed. 4. Contain construction waste before transport in tightly covered containers. Tape covering unless solid lid.	*As above and:* 1. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 2. Do not remove barriers from work area until completed project is thoroughly cleaned by Environmental Management Services Department and inspected by FMS, Safety and Infection Control.
CLASS IV	*As above and:* 1. Seal holes, pipes, conduits, and punctures appropriately. 2. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site OR they can wear cloth or paper coveralls that are removed each time they leave the work site. 3. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.	*As above*

Step 4: Identify the areas surrounding the project area, assessing potential impact.

Unit Below	*Unit Above*	*Lateral*	*Lateral*	*Behind*	*Front*
Class 1					
Risk Group	*Risk Group*	*Risk Group*	*Risk Group*	*Risk Group*	*Risk Group*

Step 5: Identify specific site of activity, e.g., patient rooms, medication room, etc.

Conduit, Cabling in corridor areas

Step 6: Identify issues related to: ventilation, plumbing, and electrical, in terms of the occurrence of probable outages. NO OUTAGES

Step 7: Identify containment measures using prior assessment. What types of barriers such as solid wall barriers? Moveable enclosures. Will HEPA filtration be required? YES

Note: Renovation/construction area shall be isolated from the occupied areas during construction and shall be negative with respect to surrounding areas.

Step 8: Consider potential risk of water damage. Is there a risk due to compromising structural integrity (e.g., wall, ceiling, roof)? NONE

Step 9: Work hours: Normal and off hours as required.

Step 10: Do plans allow for adequate number of isolation/negative airflow rooms? NA

Step 11: Do the plans allow for the required number and type of hand washing sinks? NA

Step 12: Does the infection control staff agree with the minimum number of sinks for this project? NA

Step 13: Does the infection control staff agree with the plans relative to clean and soiled utility rooms? NA

Step 14: Plan to discuss the following containment issues with the project team: traffic flow, housekeeping, and debris removal (how and when). YES, during preconstruction meeting following NTP.

Appendix: *The ICRA may be modified throughout the project. Revisions must be communicated to the Project Manager.*